



## **SMALLPOX**

### **ABOUT THE VACCINE**

#### **The Smallpox Vaccine**

The smallpox vaccine helps the body develop immunity to smallpox. The vaccine is made from a virus called *vaccinia*, which is a “pox”-type virus related to smallpox. The vaccine does not contain the smallpox virus and cannot give you smallpox.

The smallpox vaccine contains the “live” *vaccinia* virus — not dead virus like many other vaccines. For that reason, the vaccination site must be cared for carefully to prevent the virus from spreading. Also, the vaccine can have side effects.

Currently, the United States has enough smallpox vaccine to vaccinate everyone in the country who might need it in the event of an emergency. Production of new vaccine is underway.

#### **Length of Protection**

Smallpox vaccination provides high level immunity for three to five years and decreasing immunity thereafter. If a person is vaccinated again later, immunity lasts even longer.

Historically, the vaccine has been effective in preventing smallpox infection in 95 percent of those vaccinated. In addition, the vaccine was proven to prevent or substantially lessen infection when given within a few days of exposure. It is important to note, however, that at the time when the smallpox vaccine was used to eradicate the disease, testing was not as advanced or precise as it is today, so there may still be things to learn about the vaccine and its effectiveness and length of protection.

#### **Receiving the Vaccine**

The smallpox vaccine is not given with a hypodermic needle. It is not a shot as most people have experienced. The vaccine is given using a bifurcated (two-pronged) needle that is dipped into the vaccine solution. When removed, the needle retains a droplet of the vaccine. The needle is used to prick the skin a number of times in a few seconds. The pricking is not deep, but it will cause a sore spot and one or two droplets of blood to form. The vaccine usually is given in the upper arm.

If the vaccination is successful, a red and itchy bump develops at the vaccine site in three or four days. In the first week, the bump becomes a large blister, fills with pus and begins to drain. During the second week, the blister begins to dry up and a scab forms. The scab falls off in the third week, leaving a small scar. People who are being vaccinated for the first time have a stronger reaction than those who are being revaccinated.